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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,768	01/07/2002	Thomas J. Nostrand	21220/04097	4127
24024	7590	10/22/2003		
CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114			EXAMINER LEJA, RONALD W	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/040,768

Applicant(s)

NOSTRAND, THOMAS J.

Examiner

Ronald W Leja

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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The indicated allowability of claims 15-20 is withdrawn in view of the newly cited reference in the IDS of 5/22/03, Hansen et al. (5,045,963). Rejections based on the newly cited reference(s) follow.

Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What is exactly meant by "to within levels considered safe"?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al. (5,045,963).

Hansen et al. disclose a protective circuit for protecting against situations wherein higher current and voltage (and thus, energy) levels could be hazardous in explosive environments. An excited sensor (1) is connected to a source by an electrical pathway (3,4) with transient suppression apparatus (7) disposed in series with the pathway to the sensor. The transient suppression apparatus comprises (see Fig. 4) an impedance element (R1), at least a first semiconductor element (T1) and a second semiconductor element (T2); the conduction of transistors T1 and T2 depend upon the voltage

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dropped across the impedance element (R1). See Col. 2, lines 38-52, Col. 3, lines 5-11, lines 49-61 and Col. 4, lines 3-8. Although the disclosed sensor is a flow meter and not a quantity sensor and fuel within a container is not specifically mentioned, it is the opinion of the Examiner, that since the Reference teaches protection from explosion within explosive environments, wherein fluid metering is engaged, that it would have been obvious to extend application to any explosive fluid metering environment, such as, to an aircraft fuel container (for Claim 16), thereby, adding transient explosive protection to aircraft, resulting in increased safety to the aircraft, technicians and passengers. The use of a sensor for determining quantity of fuel would have been obvious so as to not allow an aircraft to take-off without knowing if a sufficient amount of fuel for the desired trip was in the fuel container, again increasing safety. For Claim 17, pulsed excitation is used for the sensor. The protection circuit is disclosed as helping to prevent explosions, by limiting current and voltages to the hazardous area (5), therefore, the levels being limited for current, voltage, and thus, energy, are considered to be at a safe level (for Claims 18,19). Also since the limiting of current and voltage occurs at (7,12), it would have been obvious to do so in close proximity to the hazardous area/container, thereby not allowing potentially explosive transient conditions from arising further downstream for that protection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W Leja

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whose telephone number is (703) 308-2008. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703) 308-3119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Ronald W Leja  
Primary Examiner  
Art Unit 2836

10/18/03

rwl  
October 18, 2003